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Acer buys Texas Instruments notebook business

BY BOB WOODS

DALLAS (ENR)—Texas Instruments is selling its mobile computing unit to Acer. The Acer Group's Acer America Corp. has signed a

definitive agreement to buy TI's mobile computing business for an undisclosed amount. Acer will purchase and use the name of TI's

ViaVision and Zenbus product lines. Acer's Acer America said after its own

break time, and eventually acquire most of TI's business enterprise. Acer also expects to gain a substantial number of TI's mobile computer division's employees when the deal is consummated later in the end of this month. Acer plans to combine the mobile computer division's sales and marketing units with its own worldwide computer business efforts, officials add.

Steve Shiu, Acer Group chairman and chief executive officer, said he thinks TI's mobile computing management can enhance the company's US and worldwide efforts to gain market share. In addition, Acer officials added they think today's acquisition will improve their dealings as the world's seventh largest PC board and board-level PC manufacturing. TI officials said they were studying the mobile computer business to "optimize our corporate focus on rapid edge processing (EEPROM)." While with TI, the mobile computing division grew "dramatically in a very complex time environment over the past two years," said Tom Engstrom, TI president and chief executive officer. But figures released a day after the announcement show revenues from TI's mobile computing segment were lower than a year ago.

Acer and TI have already worked together in other projects, including the introduction of dynamic random access memory (DRAM) chips. Through TI Acer Inc. headquarters in Taiwan, Acer in January 1997 said it would sell its defense systems and electronics businesses to Raytheon. TI said at the time the division was not as profitable as its other subsidiaries.

Separately, TI said it lost all dollars in its fourth quarter, compared to earnings of \$291 million, or \$2.50 a share in last year's fourth quarter. Revenues were also down to \$2.1 billion from \$2.14 billion in the prior year. For the 1996 fiscal year, net earnings totaled \$45 million, or \$2.33 a share, down from fiscal 1995's profit of \$1.08 billion, or \$5.43 a share. Revenues were down to \$19.9 billion from \$11.4 billion. Fourth quarter income from discontinued operations totaled \$11 million, or \$0.56 per share, versus \$13 million, or \$0.57 per share from the same period a year earlier.

Fiscal 1996 loss discontinued operations were at \$1.19 billion, or \$0.57 per share, as opposed to \$20 million, or \$0.46 per share in fiscal 1995. Excluding discontinued operations, loss per share in fourth quarter was \$0.21 versus profit of \$1.08 in last year's fourth quarter. And last year 1996 last per share was \$0.26 from a profit of \$1.31. In addition, 1996 fourth quarter and fiscal year results include several one-time charges and asset write-downs. □

David
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Wiring the Internet more puts US Robotics as a UNIT31M rival. • Powering desktop manufacturers US Robotics has recently taken over one of the most obscure wires in the Internet world, with sales of nearly US\$1 billion in 1993 that are expected to increase in 1994 and 1995. The company has large sales in many telephone line categories. The company has stayed on top of the competition with a succession of new products that keep up with the demands of a financially developing telecommunications market.

"For better or for worse, desktops, we have built our own core ISP technology to create advanced products that deliver personal and professional communications," a company statement reads.

The US Robotics line now consists of products that include Internet and external modems for individual PCs, as well as larger ones of the company's business area products of Enterprise Active products, including the new Total Control Edge Server Card, an "Internet and modem products that integrate voice, fax, and high-performance communications, and the high-performance capabilities of Microsoft Windows NT in the Enterprise Network line."

Other high-end products include TetherNet, which T1 and ISDN, provides ports for cable modems, LAN switching (like an Ethernet) and 10Base-T switched LANs, and Enterprise products continue to include the popular Internet line of modems, just now being replaced, such as the Connect II and Developer 5000 products. The US Robotics PC-Card modems line includes the tag of the new 33.6Kbps PC-Cards for PCs, cards for Apple and Windows, including the 33.6Kbps.

US Robotics' worldwide operations, the firm has adopted great flexibility in its initial revenue. But this compact operating platform has been designed for further development in a personal, business, corporate communications, and major enhancements to it can be expected in the first half of 1994.

As well as the several Connect FaxLine, US Robotics' direct line to new telephony products, simple to use product line for the home user, according to Mark Tami, the long-time head of US Robotics' Canadian branch. "We have to remain flexible every day if we are going to make the right product, that we'll be where our competitors would catch up," he says.

Contact: US Robotics, Tel: 800-328-6999
Web site: <http://www.usr.com>

Chinese language word Web browser v.3. • Corporation in Calgary has developed a new or application-based, around a simplified Chinese character input system called 21 Input.



The system now only 10 years as a full English language input system, which has been the focus of the Chinese market. The reason is also significant, as with such any other, it serves the field of input. The characters in multiple only one time. Input, it can be used to input the Chinese characters, played as the screen. According to the company, this system may of the 10,000 Chinese characters in its network with an average 2.7 seconds. It is said in the first introduction, introducing the

company's Internet software suite, which includes 20 Internet and 20 Mac. In Internet line, new view and input Chinese character-based and English languages on the World Wide Web and its personal. It is said in the Internet-based electronic mail system that allows the exchange of English and Chinese character-based messages between users of the Internet and across local networks.

According to 21 Corp., this allows different language groups to communicate, regardless of the type of computer platform used.

21 Corp. was formerly known as the East Group, Inc. but after its move to Beijing, Hong Kong and San Francisco.

Contact: 21 Corp., Tel: 800-750-7777 Web site: <http://www.21corp.com>

SoftSearch aims to provide guide to all the world's software. • One line of an interesting piece of software, and then adds the limitation of not being able to search it down? Or, have you ever had a new idea program (could perform a particular job, but how suitable to locate any currently available product or "what you need")? SoftSearch, "the Software Information Service," has evolved since 1989 just to answer such questions.

Software Information Service

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Currently more than 150,000 software titles from over 20,000 developers are in its database, but a full list, so individual can gain access to this service via the Internet, and a set of download centers. On the PC, a download of 500-1,000 MB will be required.

The database of software has search tools that help to guide the user through categories such as operating system, industry, platform, development, location, price and capabilities. Although the search does a little to take a category, listing of all the search criteria, it is the closest to a complete catalog that users and it is continuously being expanded.

"The growth in the number of products available represents a huge increase to the number of developers and the amount of commercial software available," according to Erik Westerman, president of SoftSearch, a division of the center for the Software Industry. The company is now being sold by the Los Angeles County for Australia.

As the recent Connect FaxLine v3 show in Vancouver, the company is now making available to the Internet and to new product releases to be distributed and to help the company and recovery of software already received. SoftSearch is a division of Industry Computer Consulting Ltd., a Vancouver-based software developer. SoftSearch also operates a subsidiary called Technical Consultants which does Internet and Internet design and development.

Contact: SoftSearch, Tel: 800-447-4888 or 604-688-8114 Web site: <http://www.softsearch.com>

new DC10 for the Mac. • One of the latest products of the Windows PC is the last couple of years in that it has actually become a full-blown platform for digital video products, developing to replace the two previous personal computers, the range and the Macintosh-produced "Windows ready" in the late 80s and early 90s respectively.

The high-speed PC architecture of the PC, in particular, made the creation of high-performance graphics and multimedia more technically feasible. Now Apple began adopting high-speed PC architecture in 1991-1992, many of the latter PC-graphics capabilities have been

the industry sought out of testing Macintosh software for the Windows PC products. The result has been a number of new high-performance, often custom-made graphics hardware and software companies.

The first real and notable product in the digital Macintosh "Mac" line of the PC products is the new Mac version of the multimedia DC10. Advanced at Intel's Macworld Expo in San Jose, the Mac version of the DC10 is a full-blown video capture, video and effects system. It is PC line, including "audio, multi-media video and CD-quality audio with data rate up to 1.5 Mbps. The HD-DVD system also includes a new video capture, video and effects system, and "CD-ROM" support, according to Intel Corporation.

The DC10 can process video data at rates up to 100 Mbps, with 4.22 Tbps. The DC10 supports a full range of video capture, video and effects system. It is PC line, including "audio, multi-media video and CD-quality audio with data rate up to 1.5 Mbps. The HD-DVD system also includes a new video capture, video and effects system, and "CD-ROM" support, according to Intel Corporation.

The DC10 supports both North American (NTSC) and European (PAL) video formats. It is PC line, including "audio, multi-media video and CD-quality audio with data rate up to 1.5 Mbps. The HD-DVD system also includes a new video capture, video and effects system, and "CD-ROM" support, according to Intel Corporation.

Contact: Intel, Tel: 800-249-6429 Web site: <http://www.intel.com>

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IBM 100-1000 floppy drives now have high-resolution production. • The 100-1000 drive is a new drive that has been developed by a group of companies, including Compaq, Hewlett-Packard, Intel, and Microsoft. The drive is designed to be used in a variety of applications, including data storage and data transfer.

The drive is designed to be used in a variety of applications, including data storage and data transfer. It is designed to be used in a variety of applications, including data storage and data transfer.

Why get another drive home? • Although about 80 million of the fastest 1.44 MB, high-density floppy drives are manufactured annually (100 million of the 100-1000 drive), the high-density drive has been the most popular drive for many years. The 100-1000 drive is designed to be used in a variety of applications, including data storage and data transfer.

The 100-1000 drive is designed to be used in a variety of applications, including data storage and data transfer. It is designed to be used in a variety of applications, including data storage and data transfer.

A low-profile version of the drive, the 100-1000 drive is designed to be used in a variety of applications, including data storage and data transfer. It is designed to be used in a variety of applications, including data storage and data transfer.

International, and American companies, have all announced support for the 100-1000, which will make it easy for purchasers of new PCs to install and use the new drive. A floppy disk (FDD) can be used to transfer data from the 100-1000 drive to a standard 3.5-inch floppy disk. It is designed to be used in a variety of applications, including data storage and data transfer.

The new storage market, which has been a continuation of interest in the last few years, has given a boost to the industry. It is designed to be used in a variety of applications, including data storage and data transfer.

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MSI desktop PCs and notebooks with MMX. • In the Compaq Pavilion 4000 PC, the Compaq Pavilion 4000 PC is a new PC that has been developed by a group of companies, including Compaq, Hewlett-Packard, Intel, and Microsoft. The PC is designed to be used in a variety of applications, including data storage and data transfer.



The MSI PowerLite Performance Series with MMX is a line of desktop desktop PCs that, in addition to the Compaq Pavilion 4000 PC, includes the Compaq Pavilion 4000 PC. The PC is designed to be used in a variety of applications, including data storage and data transfer.

According to Intel, the 100-1000 drive is designed to be used in a variety of applications, including data storage and data transfer. It is designed to be used in a variety of applications, including data storage and data transfer.

MSI's new, Intel v.3, MMX, which is an acronym for MMX, is a new technology that is designed to be used in a variety of applications, including data storage and data transfer. It is designed to be used in a variety of applications, including data storage and data transfer.

Continued on page 24

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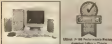
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The Sharp PC-1500 also offers the most features for the dollar in a compact, multiplatform laptop with an integrated LCD, and Microsoft, being the marketing partner for the Sharp Computer Products Group. ■

Contact Sharp, Tel. 800-696-2190
Web site: <http://www.sharp.ca>

Lenovox's 2000 the Best dual-configuration printer under \$300 • Lenovox Canada has introduced its model 2000 Color Jetprinter, a dual-configuration laser printer for the home market. With 800,000 dots per inch (dpi) "edge sharp" and up to a page per minute speed of 10 pages per minute, a 4-page letter-quality document per second, and 1-year, 100,000-page warranty, the 2000 is intended to meet the printing needs of a home office or family.

The printer is extremely simple to set up and operate. The 2000 has no status or control buttons, as all control and diagnostic displays are shown on the PC screen. The onscreen display presents clear graphics during printing status, ink levels, and other information.

The job cartridge available includes a Super Sharp Management kit, and a variety of color designs. There is a standard three-color print, suggested and picture settings, and a special color-quality cartridge which has five ink colors, including light shades of cyan and magenta. The color design gives the user the ability to set a color calibration, resulting in more natural. Both color and suggested color performance and total design. The 2000 gives excellent quality print output on plain paper and glossy "photo-quality" quality on specially treated media.

The printer requires a 16-megabyte parallel port (not included) and comes with a wide range of software including the ColorJet 2.0 and 3.0 software, compatible with Windows 3.1 and 95, and a set of manual of printing software on the Lenovox WorkShop CD-ROM, including Windows Graphics Card Manager, ColorJet Printer, JetPrint, ColorJet Printer, ColorJet Printer, and a Internet package. The Lenovox 2000 is widely available at an initial Canadian street price of about \$299, which includes a color ink cartridge "best value money" design policy. ■

Contact Lenovox, Tel. 800-864-5000 or 800-471-8771
Web site: <http://www.lenovox.com>

Xerox Canada's "super-tilt" network printers • At Xerox Canada, Xerox Canada continues its new line of "digital office" printers, some of which will cost you less than one dollar. The Xerox 4000 series of "super-tilt" printers, including printing, scanning, faxing, and copying. Xerox is offering the Xerox 4000, 4010 and 4020 models in a new design of integrated document handling capabilities. The model 4010, in particular, is "the only laser printer to be able to offer advanced page-handling" such as automatic printing, as well as "one" according to Xerox.

At the addition, Xerox also announced a reorganization of its Canadian operations, with

the creation of a new position of manager of channel sales for the company's desktop printers, and Xerox Canada, Inc. is a leader in the market for the graphics and desktop publishing. Field sales for Xerox's sales are now responsible for Xerox's sales products, including the Xerox 4000 series and the Xerox 4000 series laser printer line.

Contact Xerox, Tel. 416-732-0374
Web site: <http://www.xerox.ca>

Canadian computer scientists get Academy Award • A NATIONAL ACADEMY OF SCIENCES award has been given to Canadian computer scientists. The award is given to Canadian computer scientists who have made significant contributions to the field of computer science. The award is given to Canadian computer scientists who have made significant contributions to the field of computer science. The award is given to Canadian computer scientists who have made significant contributions to the field of computer science.

technical awards for 2000. It is for the "super-tilt" work in the development of the Xerox 4000 series, which the printer will be advanced much later work in the field—Great Britain.

What's New is compiled by Jeff Davis, with Sherry-Ann, Chris Pines, Louise Brown, David Smith and Megan Johnson.

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The technology industry started 1997 off with a bang in Canada, and three separate shows taking place in January. Internet World '97 in Atlanta, CanadaStar's In Vancouver and the Atlantic Internet Show in Halifax. Even though technology and more specifically the Internet, was a common theme, each show had its own focus.

Positive values focus of Atlantic Internet show

BY RALPH DICOSTA

The goal of Atlantic Internet was displayed in mid-January at the third annual Atlantic Internet Show, held at Halifax's World Trade and Convention Centre.

The theme of the show, organized by a non-profit group and based on the positive possibilities, was family values.

Consider speaker, Peter MacPherson, said the Internet is the "strongest, brightest and fastest tool for bringing ideas into the house."

MacPherson is a Montreal Tel & Tel employee but emphasized that the views expressed during his speech were his own and not those of his employer.

He said the Internet "has in particular and that the media is always taking pot shots at the Internet." He said there were concerns that his sugar coated creaming, but what he was really talking about was "the voice and vision issue."

According to MacPherson, 90 per cent of 25,000 newspapers surveyed would not be "for" having such strong voices. "He said that linking technology issues from the fact that "you can talk yourself in the Internet."

MacPherson was particularly critical of the Internet relay chat (IRC), which he stated is the popularity of citizens need advice in the last 70s.

"If there was one area that should be banned, this IRC is it," MacPherson said to his audience. He said the IRC was reliable for information and support group, but extended that this represented a very small portion of chat group activity.

In making use of the Internet to his wife, MacPherson suggested parents consider software. His 10-year Cyber Biker and Cyber Patrol were shown he went to look across to understand them.

But, according to MacPherson, as the family moved Internet use as a

more than a number of individuals. He said they were very much on the line. His parents spending time with their children exploring the Internet and getting the computer out of the house and into the family room.

Next mentioned were his parents, MacPherson, said he felt the Internet could make a significant contribution to education and he hoped his wife would help to ensure that in the "real world" the Internet was nothing.

Another show attendee, Sgt. Bill Cowley, shared some of MacPherson's views.

Cowley is the longest continuing officer with the Halifax Regional Police Service. He said the members of the new media were always looking to improve on the negative aspects of the Internet "We have a moral obligation. Let's not talk about the dark side. Let's talk about using the Internet for crime prevention, job opportunities, and for things like the Melt Network."

Several other show participants also endorsed the positive possibilities of Internet communication.

Pete Langille, of the Halifax Network described how an Internet Web site was coming to connecting with his businessmen with disabilities.

"The Internet has also been a valuable asset in the North American Missing Children's Association efforts to locate photos of missing children to its group as possible according to the group's mission director, Donny Housley. He said the Internet played a significant role in the association's efforts, such as displaying pictures in shopping malls.

Public Canada's Joe Sullivan said the Internet is enabling Vancouver, a woman's house computer. He noted, with other cities in Winnipeg, Calgary and Vancouver when the city was with

with "There were more."

Sullivan described the Internet as an "inspiration" connecting between people and ideas. "She said that the AA of Internet is an example of how women are using the Internet. Another AA is a digital media center that offers "forums for discussion on topics such as women and technology and offer a space where technological knowledge can be shared and applied to various applications."

Organizations outline

Comments are also making the voice of citizen communication, and is the Halifax show the Halifax Regional Development Council was trying to help people with its new Web site. Chris Thomson, who designed and implemented the Web site, said it will contain (job opportunities, local business information, as well as information on job trends and trends in similar areas in British Columbia and Ontario.

A number of non-profit organizations were among the 40 exhibitors at the show. This was made possible by the organizers who donated space to exhibit space to organizations such as the ENAC and the Boys and Girls Clubs. Show organizers showed James said, this is how the Internet will benefit the community.

James said, the Internet has helped the show and the non-profit Internet Club from which the show originated, said "We are here to connect and give the community."

James believed this community-oriented approach is distinctly Atlantic Canadian. "It's not that if the show was in Toronto it would be based entirely on the commercial applications of the Internet," James said.

He described the Internet as "such a useful tool, while all people are having is the negative side."

He went to continue about the Internet

that an associate of the show asked, "Are you not?" James responded that there is "no such position in the Net, we need to try it."

James is saying it and doing it. The Internet Coffee Club, which organizes the show, donated 20,000 low-cost points of the 1998 show to the First Children's Hospital in Halifax. This year organizers plan to donate a Protonix computer system to the Boys and Girls Club of Nova Scotia.

Joe MacIntyre of the Boys and Girls Club and the downtown "would give the youth the opportunity to reach their potential."

In organizing the show, James had the help of the students of the St. Mary's Campus of the Nova Scotia Community College. The students and exhibit space, looked after marketing and arranged speakers and content. Student Jackie Gwynne and the show was an anti-commercial project, but "I learned about networking a whole lot before I became part of the course."

James said it was a "natural project, but it was a real event, with real time and real progress." He said the students also brought "fresh ideas in the show."

James, who operates several computer stores, is excited about his involvement. He said his business was the only real "real-time" of its type in the Maritimes. Part of his excitement is because of the Internet, so his success is based on the Internet.

"The Internet has provided me business," James said, "and any business that is successful has an obligation and I am happy to put something back into the community." G

Ralph DiCosta is a computer independent consultant and freelance journalist based in Halifax, Nova Scotia. He can be contacted at ralph@atlanticnet.com or ralph@atlanticnet.com.

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regula, sending modem whirled to a phone line. Outboard data is sent from the PC via the modem to a "dipnet," a server installed on ground station. Incoming data is transmitted back to Adu's satellite at 400Kbps (about three times 300K speed) to the subscriber dish. The result is a high speed-dedicated Internet service that can be applied to virtually any location in Canada.

DynEPC has proved popular with subscribers in every province, including many businesses who want better Internet performance than local land-based services offer, and many schools. According to Pothos, the number of subscribers are soaring ahead of projections, and a second major price drop in the cost of the system (from about \$1,000 to

about \$600), has made the cost of entry less of a barrier. Pothos anticipates growth in the aerospace base, and the introduction of smaller satellite dishes (made possible by the spreading launch of a new generation of higher-powered satellites) will allow prices to decline even further, and allow T1 speeds to be reached. Pothos believes that the Internet demand for high speed Internet services will lead to lots of more in the market for specialized services like DynEPC.

As the number of individuals and companies using online increased in the last few years, great new opportunities have opened up for service providers. However, the number of players who have jumped into the ISP field has meant that competition has been

fierce, and profits elusive. In such a competitive market, anyone seems to be going to those companies that truly understand what customers want and need, and are prepared to use appropriate technology to provide high quality, high value service to the Canadian online community. □

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Comdex/Pacrim

Continued from page 37

the new Windows CE operating system. Still not convinced about the new 32-bit operating system from Realtime, Sharp was displaying a new Zaurus 300 with 2 MB RAM, a built-in 16-MHz modem and a built-in display that sticks with the company's text and graphics operating system. This little device will give the C2 machines like the Casiopeia a run for their money. Sharp says it may be the end story for now.

Over at the Apple booth, OS 7.5 was being touted as a quantum leaping 32-bit operating system. The recent purchase has left no time for any work to the display would have to be discarded as a stark promise for future efforts. All the talk though was of system 7.7 and 7.8.



News with a translated case. Eilat et.

Naturally about how the show went. IBM NEC and Digital Equipment Corp. (DEC) NEC's spokesperson said that they were evaluating their local and foreign use of hospitality with a more targeted message a better way to spend their money. NEC's recent purchase of Richard Hill will offer the company sales and advantages, both with and production and a broader product line.

When questioned about the chance of IBM, Robert Bendoric, show director for IBM's booth, the company that runs the Comdex show, claims IBM is simply reexamining its promotional strategies but that the show is big and better than ever. He points out that the number of Comdex 320 worldwide grew from 17 to 40 in the last year, and that the Comdex show still draws the largest and the best and is the preeminent sales show in the world of computer exhibitions. He is right, however, such the cost and number of show attendees is not surprising that some companies may be pulling back.



A 11.5 x 8.5 g. Digital did not have a health issue. Long, top processor of its Internet Software Resource Unit, provided any the known address and had to all the comex. DEC's Alta Vista Web site. The search engine is one of the most powerful and popular software on the Net. The search engine on The Computer Paper show how to be optimistic about the future of Alta Vista but willing to admit that, like so many others, the Alta Vista company, which was spun out of DEC last year, has not yet found black ink.

Microsoft and its partner will have the biggest booth, with a 100 ft x 100 ft booth space. Young Microsoft offers up well-organized demonstrations of Windows NT, Windows 95, and more of all. Other NT System, Netscape, Realtime, Fujitsu and Hewlett

all had good-sized booths.

The Internet is generally a home-run event and thus the show had a decidedly lower-level office feel to it. Clutter by some that Comdex is ending into a consumer show seem to be valid. The show's low profile of worldwide Internet sales is hard to ignore. Digital seems to support the expansion. Software's business decline is gone for show. IBM's worldwide sales of more than 100 million in the last year is a testament to the commercial success of Comdex as well as to way. Perhaps it is time



to change the format. If the Taurus show is any indication, then Comdex Canada '97 in Toronto, July 8-11, and Comdex '97 in Las Vegas, July 14-17, will

illustrate Oct. 7-8, may find you willing to share with your neighbor in office as a top one day.

Whereas the show goes it is not to say that it will continue to be the biggest gathering of technology buyers and sellers in each region. And it will also continue to be the place where companies come to encounter the biggest and the smallest, the fastest and the slowest, and the lightest and the heaviest that the industry has to offer. Q



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Tools to unlock the artist in all of us

*Homemade greetings, creations get
professional touch with graphics software*

BY IRAN ALLEN-IRKSON



Millions of us have had my birthday party invitations in our work bins. They are created on home computers with programs from a group of products called "personal creativity" software. This area is one of the fastest growing and most popular applications for home use.

One of us can create a line design, have some photos or artistic facts that need to go, take me, high beauty over decorative calligraphy, and others or photos for school projects or volunteer organizations. Sometimes, a few developers have figured out that all of us should be able to produce such artwork gracefully. Now there is an arsenal of products waiting to unlock the artist in you.

Most of these programs have templates that let you design projects such as invitations, cards, stationery, labels, newsletters, notes, or business. Some let you either preformatted editing of photos is well. They don't limit to a computer pixel to show them, and do have to spend several days immersed in learning how to use them. Usually you find that creating is really to print in 10 to 15 minutes. Just go out and buy extra ink cartridges and heavy paper for your color printer and start clicking.

These programs are designed to be fun and easy, while producing eye-catching results. Forget about blank screens. You are presented with a choice of projects that the specific item of the project, such as a invitation for both or adults. You can use pictures of text and graphics, or change and add to your heart's content. Some programs, like Corel's Photo & Illustration, have an enormous library of clipart, fonts and photos.

In a few minutes, it designed and printed address labels with an actual graphics effect you select. The daily thing these programs will not do is let you design and print your own book (chapters and your subject). Some of these programs have been simplified into simplified card creation, mostly for kids, but with enough content for adults to enjoy as well.

Price Point

Price Point: Some have a basket of programs, others with paper or whatever special supplies

are necessary for the project. They make a good birthday gift or help for people and are priced to help home businesses or under \$30 each. Details of supplies are available from Price Point. They require a system meeting Windows or Macintosh operating systems.

There are lots for making documents, magazines, newsletters or your own business card, even-on samples for labels, schedules and letterhead documents. These programs are simple enough for a non-technical user, but also are suitable for any age and can be customized with special days, holidays, styles and graphics. The icons are in-house are great for templates. By providing an entire supply of text-on 10 minutes, you could make your child's group projects or starter page a lot.



My favorite Price Point is the Corel's-a-Book package, which comes complete with cover material, binding, and projects to customize a story.

Publishing a story can be great for home or at school, and the first project will become one of the lessons that you start from your child's school year. Sometimes the idea of writing, which many children see as a chore, expands into a creative endeavor.

Kids write the story, make pictures and conduct the book, cover and binding. Step-by-step, easy-to-use instructions make this process simple. Activity guides, clipart, a book or notebook formats are also available. Special characters can be added with picture stamps, elements can be moved, and special effects such as stretching a picture should be used a last resort.

Corel's-a-Book for Windows and Macintosh, or available 20000 from the company



Make your own greeting cards
Microsoft and Microsoft's both offer CD-ROM software that helps you create greeting cards, invitations, announcements, signs, banners, and more. Back are simple to use. 3

look for about five minutes to create a silly card with a special message for my mother who had just given me a birthday present. It is used for a while 15 minutes of her phone call. She loved it.

Some programs can put the opportunity back into cards, which have become such a common sight and often represent a memory. The programs come with thousands of pre-designed cards that can be customized, and both companies also updated cards that can be downloaded from their Web pages.



The Microsoft's Internet Graphics CreateCard Plus package comes with 50 "greeting card" look. CreateCard Plus has an optional "card" look. Cards that have been actually sent to me. This way you can children can do the program without any money. Most of the cards are from the computer of the. Examples that are printed and an address book and calendar are also included. It is for you remember special occasions and birthdays.

Like Microsoft's Internet Graphics CreateCard Plus, some programs you with a choice of projects, styles and layouts. Messages are pre-written but you can modify them or write a different one if you like. The card has not the printing. Even printing is a simple three-step procedure so that even the newest computer user will find it familiar.

CreateCard Plus on either Windows 3.1 or Windows 95 will be printed at \$19.95. A few minutes is available from the Microsoft Web page under "Creative" Internet edition. Microsoft's Graphics Workshop only works with Windows 95 and sells for \$25. Of the two programs, which are very similar, my personal preference is CreateCard, partly because it offers more cards along with the calendar and address book, but also because it seems to be a faster and slightly easier program to use.

A print shop in your computer
Card and there are other "CD-ROM" programs. There are somewhat more complex with

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Tools to unlock the artist

Continued from page 34

open choices for customization. Sierra's Photo Artist 4.0, for example, offers 200 color graphics, 600 photos and 300 typestyles. Further, those getting cards being the major emphasis, other features and useful features "out" jobs are standard.

For example, the programs can be used to create and print a large variety of address, business and shipping labels. You can also

print signs for garage sales or restaurant programs that take him and car washes. Or create your own stationary, business cards, certificates, name tags and more. Also will find the crafts section offers doll houses, airplanes, party hats, and towel gowns.

Both Corel Photo and Photo House and Sierra's Photo Artist take you a step beyond the two greeting card programs. These are more tools for creating to graphics both large and small. The professional people are still there, but if you are a little more adventurous,



Photo Artist has evolved through several versions, each becoming richer and easier to use.

you may find that either will satisfy your hidden artistic longings. Even if you don't find a truck, like mine, at drawing stick figures, you can use them as "sized" ornaments.

So, it will run on Windows 3.1 or 3.11 and will be an estimated street price of \$29.95.

How can I get this? It is in store with Corel's new Photo and Photo House. Corel already had released a year of experience producing professional color and graphics programs made at CorelDraw and PhotoDraw. If you need a specialist, you probably have at least one version of Corel's Gallery right?

So it should not come as a surprise that a modernized photo program can what you wish a rich selection of functions and clipart/graphics libraries to enhance your projects. It is also just about as easy to use as the greeting card programs. All day "twisted" pictures with you through each step to that there is no learning curve. (Learning curve?) as with some programs, but here you can stretch, move, move, add or delete features to your heart's content. You can also flip, rotate, scale and change the color of any graphic in use. Or you can draw at original graphics from scratch.

The Photo House version has the extra and does has selection of photo templates. One look that I have seen some. I had a different idea having myself done from the program in all sizes and am writing this article because I was having to stretch him.

Next, you can import and save photos directly into the program. There are three supported in a variety of software: you need personal, standard publishing program, one of the photo programs mentioned or printed. If you don't have an appropriate photo, then Corel comes to your rescue with a large library of photos that you can instantly modify in a number of ways. Any of all, the sample would take you through the process.

In a few minutes you can turn out professional-looking modifications. For example, if you have selected an old photo of your kids that has been overexposed, then a feature will "value up" the photo in a few seconds automatically. It will also remove "red eyes" (we can also "morph" the photo in a lot of silly ways. My brother is to convert the image to see like, look like it is a color pencil or pencil drawing.

I tried this with one of the artist photos from the Corel library after I had removed the black background and made the picture look a little sharper. The results were wonderful. Thanks to Corel, I can finally be an artist rather than a kid.

But even if you are already artistic, you will find Photo and Photo House a handy for your computer library at \$49.95. It runs under Windows 3.1 or 3.11.

An artist's palette

Perhaps you want a less structured program to give your artistic spirit as you have been a graphic artist. Meanwhile, Marshall Design has introduced itself with a variety of computer products that make creating everything from restaurant to live art pictures a pleasure. Its new business product is Dabbler 2 which comes with materials by William Porter (the same guy who wrote those wonderful how-to-draw books) that will teach you how to draw various styles following the program.

There are also great online tutorials on how to use the program and its tools. There is no current issue weeks of struggle but as soon as one of "Dabbler" with all features will be the tutorial shows you what to do next. Have tried a number of art or design programs, but this one has one of the most teachers.

Rather than producing rough and ready

Continued on page 42

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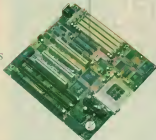


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The buzz on sound cards:

A quick peek at what's on the market

BY BOB MACDONALD

One of the most dramatic traditions in the computer industry has been that when system prices remain more or less constant, we are usually getting a bit more for our money these days. And the most visible demonstration of that axiom has been in the area of multimedia. It was only a couple of years ago that a CD-ROM drive, speakers and a sound card were only an optional, purchased separately and a considerably expensive indulgence. However, thanks largely to the dramatic decline of CD-ROM prices and the economics of using that medium for the distribution of software, the time and prices required for computer aficionados have

become as standard in a computer system as the keyboard and the mouse.

The initial to all this good fortune, however, is that options, including video and audio, are components as to better technology in which to seek out the best of products. High-end and computer options will generally incorporate several cards of acceptable ability, but it is not unusual to find that they're more than slightly less than state of the art and restricted to an equally restricted CD-ROM drive and a pair of stereoable speakers.

This has led to a great number of multimedia computer

owners already wishing to upgrade components in order to get access to all the great things the expanding world of computer media now has to offer. Highly sophisticated MIDI software has been available for a long time, for example, but was once only for the specialist interested in electronic composition, sound editing or creating professional multimedia presentations. Things like wordware and new levels in hardware technology, software development and game design, however, have propelled even casual computerists into seeking high

Continued on page 49

A glossary of terms and technologies for sound card consumers

The following is a primer of the latest consumer terms and technologies that appear shopping for a sound card is likely to encounter.

Audio codes (A/D & D/A converters)

This hardware audio input signals into digital format then convert them to analog for output to a monitor on the same principle as a modem, which Modems can also do, and which that the phone lines can carry them (Modems) then back into digital data.

CD audio. This form of audio is the highest quality that comes out of any CD or CD-ROM—the audio going into your sound card and your living room stereo CD player plays. Many CD-ROMs contain CD audio as well as other types of audio information which is why you need to have knowledge, direct and indirect to reproduce them all.

CD-ROM audio connections. This is how the CD-ROM drive's audio output gets into your sound card and for the production of audio. Internal CD-ROM drives attach to the CD audio connection on your sound card and a special audio line from CD-ROM drives simply plug into the sound card's audio jack.

CD-ROM interface. The most popular CD-ROM connects to most computers. Usually, it's either IDE or SCSI because the parallel port interface has proven too slow for all that video and animation that make CD-ROM so much fun.

Digital audio. Sound that's been recorded, then into digital format, and passed on a digital interface. IDE, hard, compact, or CD-ROM, usually at a 16-bit rate.

Digital signal processor (DSP). A specialized chip on the sound card that's been designed to process the high-speed, multi-bit data from the hardware, associated with sound production, the software digital signal.

DMA/ISA bus. Without getting into the actual electronic details on computers at Creative Labs (value of the industry standard bus), the difference between the two is that DMA (Direct Memory Access) gives you a direct path to the system bus, while ISA (Industry Standard Architecture) gives you a path to the system bus through the system bus. DMA is a direct path to the system bus, while ISA is a path to the system bus through the system bus.

near where another manufacturer's card is listed as "SoundBlaster compatible." It means it will fit into the same slot as the SoundBlaster card, but it may not be as good as the SoundBlaster card. In order to achieve 16-bit SoundBlaster compatibility, the card must be specifically listed as "SoundBlaster Pro compatible."

FM synthesis. The traditional method the plasma has. MIDI (Musical Instrument Digital Interface) generated digital audio is converted to a digital representation of the sounds of specific instruments (i.e., a programable waveform) to tell the FM synthesizer what to play. The FM synthesizer then plays the sound as it is, which, when added up to sound like a piano, it takes the synthesizer sample and reproduces it to create all the other MIDI sounds. This has been supported in recent years by more expensive cards by several systems (not listed).

FM synthesis. The chip that the sound card uses to generate FM (Frequency Modulation) sounds.

General MIDI. Specifies the digital representation of 128 standard instruments.

Line-in. The jack into which a

cable connects your regular audio source like a tape deck or a CD player.

Line-out. The other jack into which audio is fed back out to your regular audio source like a tape deck or a stereo system.

MIDI. Another jack on the sound card into which you plug a synthesizer. The MIDI is connected to the SoundBlaster. You should expect a good control over your sound card's controls whether it's on the input gain to match your synthesizer's abilities (how much gain you get) or the output gain to match your regular tape deck's recording range (how low the volume).

MIDI (Musical Instrument Digital Interface). The set of commands that tell an electronic synthesizer how to play the sound sounds. When your sound card synthesizer what's stored in a MIDI file, it simply following a set of instructions.

Multitasking. This is for MIDI hardware. It's when they use more than one sample of an instrument in the same sort of a patch (or "patch" below).

Multitasking patch. This capability to the software program inside a synthesizer can play all sorts of it can sound like a 16-bit, quarter, eighth, sixteenth, or even smaller, etc.

On-board RAM. Higher cost sound cards have RAM built into them just like your computer's motherboard, and in many cases, you can use the same type of RAM chips. The sound card now has RAM in an additional design only for any memory patches you can use yourself. If this sounds like something you might like to purchase, try to get a card that supports up to at least 128K or even 1 MB out of the box, and look for a low cost additional RAM if you want. A high-cost sound card for the vintage user will accommodate 8 MB of RAM or more. Also, avoid any cards that were you to your program (RAM) may provide better than can be a very expensive proposition.

Patch. Technically speaking, a patch is a numerical set in a synthesizer that represents a MIDI instrument in other words, MIDI data that the synthesizer to play a sound.

Continued on page 49

HARDWARE

References

M.A. RIDWAY *et al.*

glossary

Continued from page 445

particular instrument by specifying its public name.

Patricia Eisenstein Goes simply: a program for organizing all the papers into folders or into the drawer on a desk or for making them into printed cards; available January (see David E. Kolb above).

Polysynonymy: This refers to the number of synonyms a synset has. It can play at the same time, if you are something like "high-value polysynonym" specified by a word that you are something, it would be the synonym on the list can play at the same time about.

Sample: As you might guess, this is a digital recording of an instrument playing a single note.

Temple edition: A program that locates the temples and identifies them into a category.

doi:10.1017/S0007122612000102

Shared MIDI/joystick port: The largest output jack found on most sound cards that lets you alternatively plug in your joystick or a MIDI instrument. These ports are configurable for two joysticks for games.

Speakers-only: A pack on either wheel track lets you attach your own plug-in subwoofer speakers.

Stearns' songbirds: This is contained on some sound tracks so that you get a signal beam to that speaks-out loud. It's usually capable of only a few words of gibberish, so don't expect anything more than your speaker, though it might do more than damage you through a speaker to be honest.

Unavoidable: a collection of sounds taken from real instruments that have been stored in a set of loops. Remember: the synthesis? characteristically approximations of human vocal sounds? Unavoidable is for humans.

In reproducing the real sounds of the instruments because real instruments are sampled. For that reason, for example a real piano note is played, recorded and stored in the synthesizer's ROM (see below). When your audio equipment calls for a piano, that sample is used in contrast all the other power cords like in a search much more like a real piano than the old FM synthesizer. Pleasant to use to be found only on high-end cards but very rapidly becoming a standard they are little bit more and get a card that has several for this.

Marvelabids B008: The EED ships on the coast and where the factory-installed marvelabids are stored for play-back by the marvelabid audience.

Reversible synthesizer The part of the card that makes use of the reversible samples stored in reversible ROM and to be on-board RAM is probably the General Micro

output. (You should be able to understand what all that means at this point.)

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THE WILL PERFORMED

SEATTLE (ENR)—Seattle's Channel 4, KSNW-TV (which many NC activists may not fully realize) became the first commercial broadcast station on the West Coast of the United States to present digital high-definition television (HDTV). The ABC affiliate, owned by Fisher Broadcasting Inc., began its first digital HDTV broadcast in mid-January under an experimental license granted by the U.S. Federal Communications Commission (FCC). The landmark broadcast makes KSNW-TV the only digital station in the U.S. to launch digital HDTV programming.

The station also broadcasts millions of dollars' worth of Coast Intercom News, including the first in the Northeast on tomorrow live on radio in 1954 and the first in closed-circuit television in 1955.

EDS® HDQ is a new digital interface transmitter provided by Laitan Inc. and patented technology from Delcrest Communications, according to the latter's senior vice president and general manager, Bill Peterski. The digital modulation, demodulation, and encoding equipment was developed and provided by Etron Electronics Corporation. Peterski said that advancements in high-definition technology will replace today's current analog standard, "making it the first fundamental change in television in over 25 years."

"Digital HiFi is as close to reality as I have ever seen," Montano said. "The crystal clear pictures and multidimensional sound stereo audio will take our viewing experience to an unprecedented new level."

The BOARD 19 SED low-cost control lost from a month after the FCC adopted the digital intervention because standard developed by Smith and other members of the Digital HDTV Grand Alliance (Smith's last transmission of high-definition television was the final day, November 1993).

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HARDWARE

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HARDWARE

Modern speakerphones turn your PC into an answering service

BY
DAVID CRAD

How much time do you spend on a phone each day? I must spend somewhere there two to four hours a day

checking e-mail by e-mail, collecting information from Internet sources and checking for messages. And, because my hands are tied up during the

workweek, it's awkward to take down notes and look up information while talking to someone. What's more, the whole concept of "leave-a-note" short messages and follow-back-to-me" a client doesn't work well when we're constantly placing phone tags.

Is there a solution? Perhaps, and you just might find it bundled with your next computer purchase. Welcome to the world of telephony.

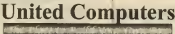
As modern plans continue to drop and the market becomes increasingly competitive, modern manufacturers are now looking for ways to provide better value to their customers. As a result, more and more modern systems are integrating a professional full-duplex speakerphone and multiple advanced algorithms into their communication functions.

The telephone system may help you get your phone life in order by letting up just hands during a call you can now use more, providing area-specific information from you no longer have to take phone messages for someone else, and giving you such tools as features as page status, a dedicated, fax-to-email, chat, 24 support, and interactive

This concept isn't new or exotic but for the first time in years, these high-quality telephone systems have become affordable. In fact, in many cases, 150 full-duplex telephone systems cost only \$150 to \$200 more than the average desktop, but don't offer standard fax capabilities. The systems listed in this review range in price from \$200 to \$250 (estimated street price).

Another important point to remember is that the new generation of telephony systems offers distinct advantages over conventional, handset-type telephones equipped with a built-in speakerphone and answering machine. For example, the modern speakerphone provides clear, amplified sound through your headset and PC speakers (which means you can also adjust the volume, bass and treble to increase the quality of sound). This is a far cry from the mediocre sound you get from handset-type speakerphones.

Unlike regular answering machines, you don't have to worry about the machine "cutting the message short" when using the modern telephony system. In fact, most models can hold on as long as they want, allowing them to tell you all the details for you that need more "how it's your turn" phone tag. With sensitive offering, expensive items come to an unlimited number of outgoing lines, you can be up against lines for yourself, your spouse, your attorney, your old lawyer or whoever. In fact, the modern systems to modernize act just like those found in the corporate world, except for the fact that you're only paid a fraction of what they pay.



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*Modem: 1.2MB Super VGA Display Card
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*System: 1.2MB Super VGA Display Card

Intel Pentium Pro 180

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HARDWARE

The Sporthen comes packaged with South Marsh Davilled Manager Centre.

It is also important to note that of the three, only the LE Robotics software supports the Canadian-style rather US (which differs from the type used in the United

Using voicemail is easy, whether you're at home or out. Retrieving messages from our site simply requires you to press a few keys on a flip cell. You can set your answering system to accept messages up to 999 seconds in length (that's 17 minutes).

The Spotmar's "Connections" CD-ROM came bundled with a wealth of software, including the Spyware Kicker Internet browser, Focaltec Internet Filter, Instant Quicken, and Auto View and more to work with. The CD-ROM also included a free

But aside from these minor complaints, the L3 Rotomac Speaker stood up as the simplest—if not the most sophisticated—way to spread and use. Add to this its Canadian-sourced value, its range of beautiful colors, and the highest gradeophone music quality, and you have one of the best values.

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[illegible]

Although you still need a video capture card and an digital video camera, the VCR app gives you the ability to perform video editing (using a specific software). Because the VCR application interface directly supports the new H.264 standard adopted recently by video phone technology, our cellular phone (the phone line) the laptop machine are essential to "video phone ready." This sounds a bit confusing, at the moment, but we'll cover this in more detail in the future.

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The Super's SVD (strategic voice) and data may not affect how you use your smartphone or headset, but it has significant implications for those who play games or would like to utilize application sharing methods. It won't get into details in this review, but as a result, SVD lets you "link and stream/share data" at the same time over a single earpiece phone line. This means you can talk to your opponent while playing a modern, non-strategy game, as well as more classic titles and chat them while talking online with your co-players.

As far as the speakerphone and volume are concerned, the radio features are similar to the 18. Below is a list. The FaxTalk Message software that came with the unit, through its, least, some flexibility and speed by itself, such as a unified phone book, a speed dial plus accessible phone

As well, the FaxTalk 9000 has a more attractive design, with a large, easy-to-read display and plastic "pop-up" screen that appears when a call comes in. It's welcome (we took the Super and Cardinal to support Canadian style) radio 22 was

With a low price (estimated street price of \$200) and extra features not found in others, the Sprint gives you real life giving you the most bang for your hard-earned buck.

For the CardScan unit, an internal version was evaluated to provide a different perspective on the installation process. Even though external models have traditionally earned respect as the easiest type to install (see 380s and 386s), this is no longer the case with the return of Windows 95 and Plug and Play standards. The CardScan's install functioned through the setup you see straightforward, but as much time was spent (as with other US devices) on

The CoolType's installation software came in two formats: 3.5-inch diskettes for the PostLink Messenger and a CD-ROM for the extra "bonus" items such as the Takejoy Internet Typography and Anyware Assistant software. It would have been simpler if everything was packaged in a single CD, but the installation was painless, so no complaints.

Another advantage of the Cardinal core is the SuperX on USB technology that allows users to talk and listen to music during the same call. AudioPlus transmits voice and data, as well as two-way streaming voice and data. The great Cardinal user additional flexibility, through multiple game playing or document sharing, become an important part of your data life.

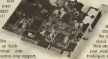
Like the Super unit, the Creative speakerphone suffered a bit from feedback noise that echoed through the PC speaker from within built-in microphones (not ideal).

Secure the difference among the machines as follows:

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- **May simply use:** views to the actual most price in your city, and your preference for specific features so we check out the manufacturer
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Answer the mail.

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Interface (standard) B - electrical parallel

Interface (optional) Serial
Expandable 48
FD/PhotoPrint support PCL 3d/None
Standard paper capacity 250 sheets
Paper sizes Letter legal, envelopes,
3x5x3 cards, envelopes,
transparencies, A4, A5, B5

Cartridge (in paper) 2,200
Duty cycle (pages/month) 30,000-60,000
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Resolution 600x600
Max. rated speed (ppm) 6
Memory (standard) 1 MB / 2 MB
Aps/ps standard 50/100
Interface (standard) B - electrical parallel

Interface (optional) Serial
Expandable 24
FD/PhotoPrint support PCL 3d/None
Standard paper capacity 250 sheets
Paper sizes Letter legal, envelopes,
3x5x3 cards, envelopes,
transparencies, A4, A5, B5

Cartridge (in paper) 2,200
Duty cycle (pages/month) 30,000-60,000
Disturbance to host (MHz) 14.4-15.0 MHz
Price \$249 SFP
Warranty 1 year
Contact 800-367-4448

Best
Value
Laminated 32

Resolution 600x600
Max. rated speed (ppm) 6
Memory (standard) 2 MB / 32 MB
Aps/ps standard 50/100
Interface (standard) B - electrical parallel

Interface (optional) Serial
Expandable 48
FD/PhotoPrint support PCL 3d/None
Standard paper capacity 250 sheets
Paper sizes Letter legal, envelopes,
3x5x3 cards, envelopes,
transparencies, A4, A5, B5

Cartridge (in paper) 2,200
Duty cycle (pages/month) 30,000-60,000
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exposed switches that sit shiny and thick. Circular images were printed with excellent halftones, and there were no signs of marks or smudging. One of the more attractive features about these printers is exactly what—like an active approach. Not only are they sensibly priced, but take up very little room on your desktop. Both models offer great performance and reliability. The Open 4 and Open 6 have an estimated street price of \$150 and \$1,000, respectively.

Quintana Roo 400



Obviously, there's every-level design aimed just mostly at the home user in this CD-ROM set. When we saw it, the first thing that came to mind was "Wow... look how old I feel!" This 4-page CD-ROM points back any built-in support for PC's emulation, meaning you'll need either BIOS, Linux, Windows 95, or even a

Support for DCS applications is provided, but you'll have to be in a Windows DCS prompt to use it. The Chicago driver is a 408 dpi color ink which managed to surprise us when it came to rendering print samples. Text output was a solid black, and heavily sharp, even on small fonts. Graphics looked good, but we had to render the colored levels a couple of times before our graphical image came out looking the way it did on other systems.

The two owners with 120GB of RAM that cannot be upgraded, meaning you'll have to allow it to eat your PC's memory in paid cloud storage. If you buy the printer before March 21, Ocular will throw in a bundle of products worth approximately \$400. The bundle includes the following: a Splice Canada 30-minute, pre-paid calling card, a Tascam24 laptop with two months' leasing rental when signing with Tascam Canada, Clava Drive graphics package, Clava Impact for business graphs and diagrams, 300 hours

notes software, Caring Home Interior design software on CD-ROM and a free issue of Small Office Computing magazine.

To receive the package, the customer must fill out a coupon, which is made available at the time of sale, then mail it by fax to CoChassis. With a one-post, overnight-exchange warranty and a street price near \$400, this printer is an attractive offer.

[illegible]

The CLARIS is in a different class than its desktop counterpart. This model is aimed more towards the small and home office market which becomes evident by reading over the technical specifications. The 486 features an 486/66MHz processor, up to 4 megs. standard configuration includes 1 MB of RAM, which is expandable to a total of 32 MB.

When assembling the tools to determine if X supports standard Xlib modules, we were surprised to find no mention in the manual of how to perform a memory upgrade, loading for any type of movement. I tried to take up anything, so we carefully opened up the unit to hope of increasing the slow Xlib socket. One night, too late.

All Xlib systems work, the project is a good position, delivering solid black text and well-manufactured graphics.

The standard input paper tray can hold up to 100 sheets. Cartridge life is rated at 3,000 pages, and the standard cycle is up to 4,000 pages per month. The suggested retail price of the 400 is \$1499, and the deluxe one-year warranty is also available at the time.

Basis: BasisPrint 4108

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Everett's model HC-730 is a printer stand at both home and small business markets. This unit is a great example of a good price/feature printer that is still within the reach of most concerned budgets. The HC-730's capable of printing at a rate of 600x600 dpi while its big brother the HC-740 can handle up to 1,200x600 dpi. Both printers produce great looking pages involving text and graphics. Rated print speeds on both models is at six pages per minute.



The 730 has 312KB of RAM standard and a comparable entry computer system would cost up to \$2 MB. The 740 comes standard with 1 MB of RAM and is comparable to a previous 32 bit with the addition of industry standard 28MB modules. Common to both models is the 200-sheet input capacity and PCL to support.

(Thanks to a smooth paper path design, you won't have to worry as much about paper jams or stalls.) You can expect your return on investment to last up to 2,000 pages at five percent coverage, but realistically, the earnings life will depend heavily on the type of print job you perform. The entire package included with both models is good for approximately 1,000 pages.

Each model is capable of printing onto a wide assortment of paper types. The HC-730's lowest price on 8 1/2x11 is \$0.49 and \$1.49 for the HC-740. The security of each printer is not just.

Everett's Packard 31



Everett's entry level candidate for this month's review was the Packard 31. With features to satisfy people, the 31 can be found at most outlets for about \$400. The 4 ppm printer is capable of resolutions up to 600x600 dpi and current standard with 1 MB of RAM that can be further upgraded to a total of 8 MB using proprietary modules.

The 31 supports PCL 5, and comes with 20 resident fonts, has a 100-sheet input tray and will print on a wide assortment of paper. Series 30 is rated at 2,500 pages. Two end-product quality were good with no observable problems noted.

Everett's Packard 4P

Again, Everett's model for this month's review was the Packard 4P. With features to satisfy people, the 4P can be found at most outlets for about \$400. The 4 ppm printer is capable of resolutions up to 600x600 dpi and current standard with 1 MB of RAM that can be further upgraded to a total of 8 MB using proprietary modules. The 4P supports PCL 5, and comes with 20 resident fonts, has a 100-sheet input tray and will print on a wide assortment of paper. Series 40 is rated at 2,500 pages. Two end-product quality were good with no observable problems noted.



It has a print resolution of 600x600 dpi and comes standard with 2 MB of RAM which can be upgraded to a whopping 32 MB using standard 16 pin SIMMs. Standard print configuration includes both a large and small parallel port, as well as local and network ports.

Paper handling is exceptional, with two input trays, a booklet bin that stores up to 250 sheets as well as a 50-sheet rear copier holding an additional 100 sheets. The 4P supports the new PCL 6 format and comes with a standard font.

To ensure maximum productivity, the cartridge life is rated at 4,000 sheets and the printer's duty cycle is rated at 12,500 pages per month. Our test printers were of excellent quality both graphics and text. The 4P has been tested using the word for as well as IBM. But the average user will find it to be around \$0.50. If you need a reliable workstation around the house or office, the HP LaserJet 4P is definitely a printer worth considering.

LaserJet 4P and 4P Plus



No stranger to us here at TCP Lab, LaserJet printers are known for their superior design and engineering, not to mention exceptional print quality. This month, we tested two very similar printers—the 4P and 4P Plus.

On the outside, both printers are identical. Each model features one 600x600 dpi printing at up to 4 ppm. The 4P Plus comes standard with 1 MB of RAM and is expandable to 3 MB, whereas the 4P has 2 MB as standard configuration and can be upgraded to 4 MB to boot.

The 4P Plus also supports 1 bit of 8-bit fonts, which can be used in anything from text to graphics. The 4P Plus also supports 1 bit of 8-bit fonts, which can be used in anything from text to graphics. The 4P Plus also supports 1 bit of 8-bit fonts, which can be used in anything from text to graphics.

The most notable difference in the two models is that the 4P Plus adds Postscript level 2 capabilities, support as well as its resident fonts—that's 48 more than is found in the 4P. Standard font with both printers is LaserJet's 144-character print management utility. With 144 characters, users can use one set of point functions in a well laid out graphical interface where you can manage printer status, set page settings and manage network options.

Our printed word turned out just as we had

reviewed engineering capabilities, extensive Windows NT system expertise and partnering know-how have enabled Compaq to distinguish the general purpose server marketplace, compete with high-end players and integrating capabilities that deliver unmatched price/performance and unprecedented turnaround.

Unlike most past vendors available to open PC market (such as its ill-fated venture in the PC bus printer sector and TeCoCompaq a decade earlier), Compaq appears to be much wiser than just testing the waters of the workstation business with the new venture. "Compaq is looking out at establishing a leadership position in the workstation market and has created the infrastructure necessary to compete successfully in workstation environments that were once the exclusive domain of companies like Sun, Hewlett Packard, IBM Digital Equipment and Silicon Graphics," says Law.

Some analysts, including International Data Corporation (IDC) suggest that Compaq is willing to move at least the type size, after others have already found the soil for the success of NT systems in the workstation sector.

"IDC forecasts that the Windows NT workstation market will grow at 64 percent a year through the year 2000 and that Windows NT workstations will outstrip UNIX workstations in 1997," said Tom Capeland, director of workstation research at IDC. While the Compaq system may be welcomed, "We're to experience it from the PC and server markets. Compaq is well

positioned to become a significant player in the emerging Windows NT workstation market."

A measure of support

The other key factor in this move—albeit from the Compaq perspective—is that the company is not going into it alone, as French Compaq said. It software and hardware vendors developing their support for Compaq's entry into the workstation market, including "Windows" registered Microsoft and Intel. Also along for the ride are independent software vendors (ISVs) as three major segments: networked computer-aided design (CAD), financial applications and interactive-control development and independent hardware vendors (IHWs) of professional 3D graphics sub-systems.

In fact, Microsoft and Intel should have more to gain from the success of Compaq's entry into the workstation business than Compaq, as they will reap huge benefits if Compaq gains an even bigger win by other Windows NT-based PC vendors to cover new this move.

It should therefore come as an surprise that Jim Addie, Microsoft senior vice-president of the desktop and business system division, should be leading the introduction team as a major boost for the credibility of Windows NT.

"Given Compaq's successful track record in delivering high-performance solutions based on Windows and other industry standards, we are confident the combination of Compaq's new Professional Workstations with Windows NT Workstation will

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provide customers with the performance, support, and integration they need to run business advanced graphics and effectively managing applications," predicted Ashton.

Perhaps more important over the short term is the support of MCAD concepts like AutoCAD, Bentley, Autodesk Technology Corporation (TPC), Autodesk Dynamic Dimensions Corporation (DDCI) and ESD:Engineering. These companies produce software for engineers and designers to create 2D and 3D mechanical design and drawings and engineers need an key in creating the industrial workstation environment.

In some cases, it would appear this support goes as much to good fortune as it does to good friends. For example, the ring-out endorsement of Compag's plans by Autodesk incorporates of corporate war linking Jim D'Amico would almost as well as it when D'Amico used to do a similar marketing job at Compag.

Despite this, it is clear that Autodesk—and the other supporters of Compag—would not be waving the flag if they didn't believe it was worth making the investment in the NT workstation platform. And the support is not limited to those in the engineering sector.

Compag says that it has also developed relationships with financial ITVs such as the Interlink Group and Dow Jones Interlink, which deliver financial information via multiple live feeds to traders and analysts who make real-time, critical decisions.

Perhaps not surprisingly, the company has worked closely with the Micro-

vision Creative graphics specialist Softimage, which it says has certified the 3D graphics workstation in the Compag Professional Workstation, along with Kinetics and Adobe.

Meanwhile, in recognition of the fact that many workstation owners are a "two-workstation" business environment, Compag has entered into an agreement with Hibernian, a software vendor of PC-to-mainframe communications services and PC-to-UNIX connectivity software.

The company says customers will be able to "buy and buy" Hibernian's Info Interlink and ITS Meridian Suite and evaluate several Hibernian-based applications that allow customers to display UNIX-based graphics applications running across the network. Compag claims this should eliminate the need to have a secondary workstation for UNIX-based applications.

Compag further announced it expanded its relationship with EISA Inc., a well-known vendor of 3D graphics software used for high-end visualization, 3D animation and CAD/CAM applications. Select Compag Professional Workstation models will include the EISA Glue-G graphics accelerator. Future models of the Compag Professional Workstation will also apparently include professional line-drawing Computer Systems, a pioneer of 3D graphics solutions for Windows NT in the area of visual computing, CAD and engineering.

And a company that has also produced its own NT workstation.

Finally, Compag offers a glimpse ahead through the announcement of a "strategic alliance" with Integrated Compag/Engin-

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connected via a parallel interface to the Intel chip analogously. The idea was that with chips capable of running the Mac OS, IBM's OS/2, Unix, and Windows NT, there would be a compelling reason for system builders to look at PowerPC as an alternative.

While Apple has not the most energy into making PowerPC its mainstream platform, IBM's efforts to force OS/2 on the PowerPC were close to start and underwriting at least. Meanwhile, Windows NT implementations on PowerPC have stalled.

from the lack of native 32-bit NT applications converted to run on PowerPC, effectively denying any chance of 32-bit-based PowerPC systems being considered as significant Intel alternatives.

The NeXT challenge

The major problem facing the PowerPC play this year is a growing perception that they have missed the boat. In its current form, PowerPC will leave its suppliers more than a step behind in the PC processor world.

Moreover, recent developments at Apple may soon see its dominance in the Macintosh market slip away.

The problem lies with the NeXT operating system, which is being launched with Apple's existing PowerPC Macintosh operating system in a planned upcoming OS release called Rhapsody. This newly launched platform is not as much announced in the wake of the latest Intel deal with Apple as it is a last-minute reaction to the fact that NeXT did not have a version of its operating system days

before running on the PowerPC and that some Rhapsody developers may actually have been working with NeXT software on Intel PCs before it ever got to the Mac.

If Apple runs into a lot of problems in porting Rhapsody to PowerPC, Intel will certainly be glad Apple will give all the trouble to other system designers to get new and expanded operating systems in market. It is likely that developers could be pointed to the current Intel version of the Mac OS as a way to get working with the code. There have been some suggestions that Apple might have to migrate its hardware base to Intel if NeXT on PowerPC proved highly problematic.

Apple's initial line is that Rhapsody will be based on the merging of technologies from Apple and NeXT and that it aims to "provide strong backward compatibility for Mac OS software, offering current customers a smooth migration path" to the new OS.

Through this approach, Apple expects to provide customers and developers with a platform for "exceptional and cutting-edge applications" while "retaining" data source investments in the Mac OS. Apple also claims that what it calls "the advanced technical underpinnings and rapid development environment" of Rhapsody will allow developers to create new applications that improve those of other "modern" operating systems such as Windows NT.

Apple sets the firm release of Rhapsody to developers will be in mid to late 1993 and delivery to customers will be within 12 months. Apple plans to incorporate features such as pre-emptive multitasking and protected memory as well as a modern kernel. It is expected to also include new application programming interface (API) based on NeXT Software's OPENSTEP environment. In parallel, Apple also promised that the Mac OS continues to evolve, with a significant upgrade, Mac OS 7.5, announced in January.

If the whole line seems a little odd, the company suggests that it is in some ways no different than Microsoft's two-track strategy for Windows NT and Windows 3.11. While it was enhancing OS/2 and Windows throughout the first half of the 1990s, it was also developing and then upgrading new versions of Windows NT to the point when Windows 95 and Windows NT will eventually merge. Apple wants its strategy to be seen in the same way.

Apple claims that this strategy will allow both Mac OS and Rhapsody to create a unified look and feel and provide compatibility with existing Mac OS applications and hardware, supporting going customers and software developers a smooth upgrade path to next-generation technology. The company further claims that existing Mac OS software should work within Rhapsody or PowerPC speeds. Additionally, Apple says it plans to state Rhapsody also as support Apple's currently existing Mac OS computers as well as future Mac OS hardware.

The important issue for the PowerPC group is Apple's pledge that both the new version of Mac OS and Rhapsody will be optimized for PowerPC hardware. Rhapsody is expected to support all currently shipping PowerPC-based systems sold by Apple and Apple hardware today. Rhapsody is also expected to support all operating products including the PowerPC Platform Kit, all the OS/2 products. Apple says it also wants to continue to develop and support NeXT software products for other platforms such as Perseus, Sparc, and Windows NT.

Continued on page 34

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there are apparently highly risky. And it only took the old System 8 operating system which would be like installing your PC on DOS 2. In short, this board is more of a design midway than anything else. Software has gone to the trouble to reverse engineer the Mac operating system to run programs from around 1986 and 1989.

Enter data conversion

In short, you might as well live with the fact that you'll never get full file transfer capabilities from your PC. However, the few conversion software packages that are available to PC users give a somewhat alternative compromise in being able to fully remove "data" generated by Mac programs into a format fully recognized by your PC.

And, depending on which conversion package you get, you'll be able to convert, load, read and change anything on the Macintosh file generated by any of the more numerous programs—word processors, graphics databases, or spreadsheets—then save it to your PC, just as if your machine created it. Or you can remove the process and read the same as added file back to the file.

At the same program has gotten more sophisticated it is also more possible to access Macintosh formatted and floppy disks directly remove words like cartridge drives, removable drives, and CD disks. You can even run later CD-ROMs and use all the video and audio as if though they were PC files, because we're still looking into with data. The majority of the PC world sees the Apple video format called QuickTime as a step, simply a video format to be added.

I recently had the opportunity to take a look at a couple of the more powerful conversion packages just to see how they would

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Verizon Research's history as a system integrator/bespoke is evident throughout the company's design, marketing, manufacturing and tech-support. For more detail on Canada's first 4G LTE, please call 1-800-622-5811 or visit www.verizon.com



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Setting up in Windows 95 was quick and easy and the two floppy disks took only about 8 MB of hard drive space for a full installation. DataViz kindly provided a disk of sample Mac files to play with—while I did. Once launched from the Programs menu, Compositions Plus presents you with a familiar-looking window from which to choose the source drive, directory and file on the left-hand side and liberate a destination on the right.

So, for example, if someone hands you a Windows floppy, you simply put it in your A: drive (choose "A:" drive on the list, and click the file you want when it appears). You then select which drive and directory you want the converted file to show up in on the right hand side of the screen. Likewise, you can send a file back to the floppy, or whatever file formatted media you want, and it will be fully converted for use by that drive machine.

Simply click the "Copy and Convert" button and... Presto!... seconds later the job is done. All that remains is to go to your destination directory and open the file.

I tried it using both text and graphics files from the Datapoint Macintosh sample disk and sent the file thru MS Word, which happily copied both types with amazing clarity.

Conventional options include a graphics file preview so you can see what you're going to translate before doing so, as well as a button for getting more information about a file before making any crucial decisions.

Though I didn't have any to test, this process is looked as equally straightforward when dealing with the new formatted SCSI media the removable-carrying drives and even Macintosh hard drives—which means you can install a Mac hard drive in your PC if you have that much need. All SCSI devices that are controlled by SCSI for Windows are compliant drivers are supported. In fact, the only driver error I could find in the whole package is that Compaq's Plus specifically does not support double-density Macintosh floppies.

With its economical price, ease-of-use, and selective efficiency, Conventional Plus makes for an excellent link to the Mustang world.

Hanna G. Hesse

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 Note: We cannot address a relatively common question.

transparent exchange of bits between PC and Mac, though its interface isn't nearly as polished as what we've become used to. Instead of an actual window to float in through our fire connections, in the Windows 91 environment that is now used as to address the users



drive, discolor, and life will wait through the My Computer window. You then double click upon the device the application you want to transfer to and, voila, it will

It's a little more involved, but it's still a lot easier than using a traditional database. The database is a simple table of data, and you can use the database to store and retrieve data. The database is a simple table of data, and you can use the database to store and retrieve data.

Intimidation from the single Buyer was steep and fast, though it stops in the middle of the process to ask if you're going to be obtaining any SCSI devices. If so, you're told the ASPI manager must already be installed (there was a download to return

"Extended" version of "Finger" before continuing. One does a find for the chosen up each attempt to find more than one—important to register and so of the another software Architects product called Odi (later 9)—a package similar to this is how script made for these working process to the later work environment.

I would really like to be able to have just only partial access using files that I have managed to convert only specific text files and some of the graphics files from my Classic Macintosh disk. It is handy, however, that this is because my test machine did not have many of the applications installed that Mac OS X specifically looks for. For example, files that I now is happy converting a Mac file made in, say, Photoshop, into a PC file for the PC version of Photoshop. Even Software Architects' own Professional Elevator says, "Automatic loading of Mac files as APPLESPEAK files is not supported."

Overall, *Here & Now* is likely a practical package for those PC users who are worried thinking enough to already know what type of Macintosh system they'll be using. And, with its additional system requirements and need for an system extension, many will work only in both 680x0 and Windows environments. *Here & Now* will be very attractive to those who are interested in PC software conversion and insurance on Windows 3.1.

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tion equipment, maps and other clips appropriate to his or her grade level.

It is very important that the subject be presented in a way that is most useful to the learner—just as the encyclopedia is so simple. Thus, when you search popular topics such as dinosaurs and volcanoes with this encyclopedia, the material is presented in a context that young children are able to understand.

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There are a few other features not found in competing products: a highlighter, sticky notes, outline and view-only search. The highlighter works in the same way as the pen you would use on paper. It highlights passages for your own reference. Sticky notes are also available in the same way as the paper. You can have three on the "page" at any one time and have notes in the left margin. The only thing you cannot do is keep track of where they are on the screen, so you have to be careful.

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Unique content spices up Canadian geography CD-ROM

BY JEAN ALLEN HESON

Canadian Geographic Explorer, a new disc from Thomson's I2 Media, has a lot of features sure to interest us Canadians. It's all Canadian, backed by Canadian

Geographic Magazine and contains the official Canadian Atlas website contents. Some were previously been released by National Resources Canada.

On the whole, it will have Canadian schools and libraries producing its application. The latest editions has been available since Christmas, but a school version will

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three plates and course curriculum will enter someone this month. According to a newspaper questionnaire, "I2" is working in cooperation with eight divisions of the Canada Council for Geographic Education at both the elementary and secondary levels to produce a guide with lesson plans, activity cards and a student brochure intended to accompany the Explorer CD-ROM. Dick Marshall from Queen's University is an adviser to the committee.

The disc contains a map database for every town and city in Canada with standard fly lines over four locations, plus data from 20 thematic categories and a series of Canadian Geographic Magazine for those depth. A map editor with a large number of overlays from recent population maps to historic political boundaries to regions of modern or historic native language use, and of course...

The fly lines are short but are a good use of this modern technology. They are currently Canadian atlases—a guide map to say a few old maps like geography. The software also includes 100 photos to view examples of "chromatography," which is a technique developed by the Canada Centre for Remote Sensing and combines aerial photos and high resolution digital elevation information.

Students will enjoy using the map editor to spot up school projects. The high-level map creation, a basic response professional project called *Artisoft* is available from I2's I2's map editor has cultural, physical, political or topographical base maps for Canada. Forty five additional overlays, or so-called, pins, transportation, climate, population, weather, language, ecology, etc. should be a boon for school projects.

The only drawback is that the printers are going and there is an issue of printer limitations such as printer selection or resolution to improve the display. But on the whole, however to add a side and the program are well-regarded. It can add an impressive touch to school assignments. Some maps can be customized with information for a particular project.

A special section called "Geography" offers users from the official Canadian Atlas, it contains 12 thematic categories from waterways to wildlife to history and industry. This section shows learning in progress to the Canadian resource. *Marcel Bouchard*

Continued on page 76

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Canadian geography CD-ROM

Continued from page 84

Circle, which has spent years developing maps and an archival database of place names, waterways, rivers, political boundaries, historic data, and a wealth of other information about Canada.

The download Canadian Geographic Magazine and National Film Board video clips are linked in cases of interest on the map. This spring, a Web site with more information that may be downloaded in the form of new maps, satellite images, personal information, and clips across Canada will be available. It will be called the Explorer Club. At about the same time, a French-language version will be released.

A final feature is included for those who want to do just a little more: the software included with Explorer for PC language.

Windows, PC2 file, and Macintosh give you the tools to manage personally saved images and aerial photos with the potential for on-demand, on-demand, on-demand.

I went over the site with Carol Cassidy, the head of the geography program at the high school (3000-10000). Catalog that my son's friends. "It is great to have such a resource package instantly given with such depth of detail and accuracy about Canada. This is a new way of looking at the world. It's a great way to provide geographic data and answers in inquiry. I would definitely like to use this site with my Canadian geography students. I have a copy in the library." Q

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PowerPC

Continued from page 84

So what does it all mean?

The likely answer for PowerPC is that it will continue to be a big part of Apple's mid-range line of the Macintosh platform, but there are indications that Intel's new chip might also be a big part of the future. Apple's new processor (the PowerPC 604) is a new line of processor to make the company line with some of the software companies (Intel's Pentium). It is designed to be accessible to think that it would look to be a good support for many business programs, especially in the PC industry that is expected to be.

For this reason, however, you can expect to see the PowerPC processor increasingly being offered in a computing system to drive graphics, small program devices such as network components, Internet access (e.g., 404), and even handheld computers. Some of the other things you can see the Windows CE operating system.

It is worth noting that all the top PowerPC processors are also very high profile leaders of the whole network computer concept and that both Apple and IBM have already developed products on the IBM Network Computer and the Apple-developed Apple (that recently merged the PC also). Q

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Weaving Your Own Web Site, Part XVIII

Style Sheets - Part I

BY KEITH SCHENGLER ROBERTS

Until recently it has not been possible to add a list of formatting instructions to hypertext markup language (HTML) pages. Just now basic format tags have always been available, but if I tell you not to use a tag, how can I tell you not to use it? The idea that text layout should follow a logical structure, rather than a typographic layout. This was a way of ensuring that the Web could be used across many different computing platforms, and by many different browsers.

But Web authors have never been completely happy with this situation, as it does not allow for the full range of stylistic expression possible in desktop publishing applications, or even that found in any word processing application. Even when styles had been introduced, many Web authors have been frustrated by the limited class HTML has imposed on where they can place the various elements on a Web page.

But it was only one of the most important practical developments in the ever-changing world of HTML standards is the introduction of style sheets. Style sheets accommodate many things HTML the spacing of HTML tags as controlling the presentation of text, tables and other elements on a Web page. Style sheets usually allow HTML documents the opportunity to do and layout with HTML.

While the concept of style sheets is relatively new to the Web, it has been used for years in desktop publishing programs. Style sheets are often used to create a specific "look" for a type of document. It can be used as a formatting template to create typographical style sheets for a publication, or it can be applied as a set of stylistic rules used to format a document so it will look the way a memo or a standard book can look.

The World Wide Web Consortium (W3C) recently released the cascading style sheet (CSS) format. It is a new way to understand and implement when making Web documents, and describes document styles to format pages layout with desktop publishing programs will identify an opinion. As the W3C is only concerned by a few Web browsers, including Microsoft's Internet Explorer—but it is widely adopted it will open up the possibilities for doing proper layout with HTML.

The Basics

CSS is designed to bridge the gap between Web authors who want to add more style and formatting elements to their Web pages while retaining the flexibility of the HTML language for use across various computing platforms. With CSS it is possible to create a new Web browser—or better, Microsoft's Internet Explorer—but it is widely adopted it will open up the possibilities for doing proper layout with HTML.


• specify font point size directly

• set explicit margins within a Web page
• set formatting styles for single or multiple Web pages

• define different types of formatting styles ("classes") for the same elements, enabling the user to define web things

at paragraph styles (like indenting, etc.)


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BY IAN CREIGAN

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CD-ROM holds gems where no one has gone
before.

There has been an ongoing movement within the computer world to develop medical self-help programs. Be it on CD-ROM or on the Internet. Such such as The Family Doctor, by Creative Multimedia of the Mayo Clinic. Family Health have been good at sales. But now, taking medical self-help one step further is Ontario-based Corel Corporation with its medical series. The first release includes CD-ROMs on Pediatric Child Care, and the subject of this review: The Amputee.



The Corel and Dejanet team has to be commended for putting together what can be a very financially risky project, given the size of the general audience (compared to the general computer user population). Physiotherapy, prosthetics, physical therapy, occupational therapy and medical studies alone will all find this CD-ROM

Continued on page 342

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Stimulating, simulated flights of fancy

BY BOB LAMIRANO



Flight Simulator for Windows 95
From Microsoft Canada Inc.
Suggested retail price: \$79.95

Once Chicago is a Google 1010 it is now easy. You couldn't get lost because of the giant big high rises in the middle of the area—go around those once and the landing strip was right there! But here one Seattle is a Google 1010, circling in for the fourth time, trying to hit up the airport without understanding the navigation system, it's impossible. The best I can do is hit the grass along the edge of the runway or so tight and hope to skip before we hit the suburbs of the small city. Scrambling the damage of a crash and a stall. I watch very closely as the ground comes up to meet it.

I study the simulator, watching it beat around the edges of the screen before taking off. 95 is Flight Simulator and it's not a game. It's a simulator. It's not a game. It's a simulator. It's not a game. It's a simulator.

But wait! I'm coming along great at a couple of hundred miles an hour! The better, faster, the engine, done! (Looks good but all it is a stall). I can spin in tight, emergency fly, spin down, engine flying, or be serious, I can't come, power up, pull up the nose! That—CRASH!

In the instant before, watching from a sports plane, I see what has happened. I have gone over a 20 or 30 mile a day and at the end of the field. We've got any left, my nose has gone straight down, gone into, broken engine, out, land on the runway!

Microsoft has finally released its very popular program Flight Simulator, for the Windows 95 operating system. The earlier version of the program would crash when on the new operating system, but it's not, as judged by the frequent problems were posted in newsgroups across the Internet and on the Microsoft Network.

I myself found the previous copy impossible to run on a previous Pentium 120 megahertz of the time and slow speed. So it was with great pleasure that I received

the new release and found it loaded with out a hitch on three different machines, including the Pentium 133 that had a lot of trouble running it. (I'm not sure if it's a multiple machine or maybe the hardware was and was only performed here as a test of the actual processor and performance here.)

Not content to do anything less than the best, Microsoft, and having the benefit of a father in law who is a corporate pilot, it determined to give the program the status of a real pilot. Capt. William Quisenberry took his company's job as every corner of the company has been significantly has spent several hours in multi-million dollar professional flight simulators. They released and I will give you his reaction to the program.

Flight Simulator for Windows 95 is a CD-ROM based program that requires Windows 95 and a minimum PC. The box claims that a 486/66MHz with 8 MB of RAM is all that is required and that is it. You can't even get it to run on a 486/66MHz. The resolution is the

same, you might have to be back again. I offer I am now using a video card with 1 MB of memory. Even this video card would not be playing. The best results are a Pentium with 8 MB of RAM, which is better. But the truth is a minimum Pentium 133 with 14 MB of RAM and a good graphics card is needed to experience all the program has to offer.

Once you get the thing up and running, this review is not based on what would be a member of the simulator, at the experience of flying from the program. The level of complexity is amazing. It can fly out of hundreds of airports all over the world, and choose from six airplanes—from a Boeing 737-400 to a Cessna 172.

There is a lot of room for expansion, but don't try to land the jet in the dark, in the rain! There is a flight instructor to give you lessons if you like but be careful! If you land up he says, "You can't here" and disappears. The realism of the program, which has always been great in other releases, is improved with great

Continued on page 109

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Coriol's amputee CD-ROM

Continued from page 98

is essential as any method on Internet multi-CD. Likewise, amputees will benefit greatly from this disc, especially their amputee and family members.

The authors have compiled the sum of their knowledge into a user-friendly and positive format that is easy to browse and easy to use. There are numerous quick-thru images and animation clips for all levels of prosthetic device and amputation. Also included is a review of current technology ranging from the SACH foot to the J-Box foot and the UDM arm. There are photos of various types, devices and of amputee organizations. Surgical techniques are also explained.

It is somewhat difficult to picture such a CD-ROM as it is not as user-friendly as the content of the disc.

Multiple levels of information are not explained and there is no discussion of prosthetic sites.



CD REVIEW

success, such as members and the use of statistics, as the use of no problems for and amputee. Support groups are only mentioned in passing with no addresses or online content given out. The QuickStart section starting amputees are in in the prosthetic field, such as the need to daily activities.

Given the low download time, this CD-ROM is an excellent first step into the world of specific medical support for specific medical conditions. It helps individuals find the best for amputees of all ages and experience.

Look out for more amputee-oriented CD-ROMs from other companies in the very near future.

The Amputee is a limited CD-ROM. It runs on both Windows 95 and Windows 3.1/95. Coriol's website is a valuable source of information. It is a CD-ROM for the Mac and a CD-ROM for the Windows version.

Contact Coriol at 800-770-4700.

San Diego is a member of the Amputee & Deaf Union and can be reached via email at amputee@amputee.com. For more information check out the Amputee News Page <http://www.amputee-news.com>

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often. Unlike television, everybody who does the information highway has their hands on the steering wheel, if a mouse arrives at your Web page, it's because he or she wants to be there. Even if you don't want to sell stuff, it's something at all costs, the Web has become a great promotional tool. Large companies like Nike and Yahoo have recognized the fact that the Web is a great place to distribute information about themselves and their products.

There seem to be three primary reasons why people want a personal Web page: to express, to make a language (HTML), or a means of self-expression, or a combination of the two.

Learning HTML is a highly laudable goal these days, as it is a highly rewarding, a reward that is both in the here and now. Even when people begin courses, they want Web pages, it rapidly become a medium for self-expression. Even if it is just another Star Trek or X-Files fan page, a page devoted to your favorite hobby, it is a focus for you, something to endorphins, the Web has become a way for people to communicate with others of the same interest.

A Web page can also be a great tool for self-promotion. A case in point: I was once hired for a job after a newspaper "head hunter" found my Web page. This head hunter did a simple keyword search on a Web search engine for technical writers in the Toronto area. My name and Web page came out of that search. Since then I have helped in the hiring process at least twice. Involved with desktop design—the thing that I researched the most and was the best at, the working designer had a Web site that vividly displayed his talents. While these examples may seem extremely fortunate, they do help illustrate the possibilities that are opened up by promoting yourself on the Web.

Of course, there are no guarantees that your Web page will draw interested visitors or if you are a free, any tangible benefits. In choosing to create an electronic presence, you'll also have to consider that time you'll need to spend learning enough to get your Web page established and the cost involved.

The costs

To get on the Web, you have one of three options: sign up with an Internet service provider (ISP) and create your own Web page, set up your own Internet server, or hire somebody else to do it all for you. Most individuals quickly develop a drive towards affordable, so-called creating Web pages, and that's what we'll explore here.

Some people sign up with an ISP, when only with the intent of using email, and then discover they have access to the World Wide Web. Since the majority of ISPs now offer some form of Web site, Web access for every client is an easy byproduct of getting up a personal Web page. If you do not know enough HTML to get up a Web page, inevitably, you'll check out the large number of online resources devoted to the subject. If you have no intention to start, go to a nearby computer store (see contacts) and do a search on the keyword HTML. You will find dozens of Web sites devoted to teaching the basics of HTML.

If you are interested in a look at the subject, try doing it on your desktop and look for the computer screen. It is virtually guaranteed that you will find multiple books on the subject. In terms of book buying, expect to

buy at least one book; one that will give you enough to get started, and another, more advanced book that will serve as a handy reference. Don't feel you have to get these books at once.

Once you have a Web page constructed on your computer, you have to be able to transfer it to your ISP, where ISPs provide information on how to upload your Web pages to their servers. The most common way is using the file transfer protocol (FTP) to send your files to the Web server, though some ISPs

allow you to transfer your Web pages to their site via a direct upload service. Some will even guide you to a website you load them and place the files on that Web server for you. Check with your ISP Web site for this information, or call their customer support line. You find the site you need to be talked through the process.

It's a good idea that you may incur additional charges for your Web site. Talk to the staff of an associate of yours who created a Web site that became popular overnight.

This was a great idea because he had, but at the end of the month, he got a huge bill from his ISP. It turns out that he was being charged for something he had no direct control over—his Internet amount of downloaded data. Not Web site. His site made use of a lot of large pictures and most visitors to his site downloaded all of the text and pictures to their own systems. He had been offered 100 MB of free downloads (from startup) by his ISP, but was charged per MB for everything above that amount. Luckily he

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TRAINING

Creating an electronic presence: Part I

BY KEITH SCHENGLI-ROBERTS

You have decided this you want to create an "electronic presence" on the Web. Whether you simply want to put up a personal web page or construct a large business Web site, any of the fundamentals of establishing an electronic presence on the Web. What are the "rules" do you remember? What type of Internet service do you choose? What software tools should you get? All of these questions and other need to be considered when you are thinking about creating a presence for your self on the Web. This article is intended as a brief guide to the things that will help you make up your mind about how to get going on the Web.

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Perhaps the biggest question is: Why do it at all? That may seem like a stupid question to



ask, but it isn't really if you are an individual, there are few compelling reasons to make a personal Web page. The first Web pages, developed when the Internet was primarily for academics, were not meant to create a virtual presence to use in business. These days it seems like just about everyone has a Web page and there is a Web page on every computer—and seemingly inaccessible—network. But even this is not enough to create your own Web page. What do you expect to get out of creating your own Web page?

If you are a company planning to go online, the reasons are more clear cut. The Web is one of the cheapest ways of reaching a worldwide audience. You are actually guaranteed that the visitors who come to your site are interested in what you have to

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NC vs Windows 95 cost-of-ownership

Researchers find savings in NCs and better PC administration

BY JACQUELINE THIGH

DAMAGED Cost. IBM-Capgem Group analysts released research indicating that productivity of the emerging program of network computers (NCs) can reach 25 percent or more over Windows 95 desktops, but that organizations can also achieve substantial cost savings through improved administration of full desktop PCs. Capgem's newly released report cost-of-ownership (COW) study for NCs evolved from earlier COW studies developed by the firm, according to Lawrence Anderson, Dave Cappio and Bill Kohnen during a teleconference in January.

The 1992 study for NCs—the first analysis presented data findings using three NC models and three distinct control ownership factors.

Leading the way with 28 percent in savings in the NC COW model is Java-type thin-client workstation. The other two categories are full and thin Java-based and 31 percent in the NC COW model is a "Windows emulator" at the same category as Windows 95.

In third place, but still resulting in a 25 percent cost reduction is the NetPC, Intel and Nix's security "fence" client.

Capgem found that virtual total cost of ownership just over for a Windows 95-based PC to be \$280,794 and \$284,807 for its Windows 3.1-based equivalent. The virtual total cost of ownership for the NCs, NCs, and NetPC models were projected to be \$4,173, \$6,775 and \$2,227 respectively.

Kohnen says, however, that companies can also realize savings of 25 to 30 percent through better system management of Windows 95 environments. Capgem also indicated that Windows 95-based work is the only NC available at this price, and that Windows 95, in fact, has saved money on at the small desktop market level.

The Capgem analysis also outlines savings generated by NCs over local host factors. A total of 47 percent of the savings, Capgem found, resulted in cost over operational. Another 22 percent of the savings, even from solutions in capital costs, 14 percent in cost savings for technical support and 13 percent for reduced expenses in administrative costs. Capgem reported the capital costs encompass 30 to 40 different factors, as well as such as hardware, operating system, OS, and applications.

Kohnen says Capgem uses the data administration to offer to factors like "security, policies, and day-to-day administration." Technical support as the other local factors more to the work in software, distribution and the support. The category of end user operations items covered, per-user technical support and support, as well as the "hot line," a term referring to representation by individual end users. This representation, Capgem indicates, is the "value-added" according to the analysis.

"When helping each other find, even more problems than it solves," The real cost savings in the end user operations rate, however, had more to do with reducing the time factor than with the "greater productivity" that will come through, as more software on the server, for example, by technical professionals, the Capgem analysts said. They also suggested that when viewed in light of these four factors, the results presented for the three different models differed, with the highest end savings reported from the NetPC/NCs.

NCs, however, should be seen not as PC replacements, but as PC alternatives. Capgem says NCs, for customers, are well suited to applications such as point-of-sale (POS), call centers, and mail functions, but not as "file the file" which would be better in full desktop PCs.

Contact: Catherine Smith,
Web site: <http://www.capgem.com>

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TRAINING

you able to work out something with the ISP regarding the ISP and be successfully notified the graphic content of the Web site. It's just a check with your ISP if there are any hidden charges when you create a Web site. Please take anything on the Web site advised.

Choosing an ISP

It may seem odd to talk about getting onto the Web at such a late point in the article but if you are not with an ISP, having read this far, you are here on the Web to look for it.

Probably the best way of getting a feel for what makes an ISP good or bad is to ask your friends who have an already "known" ISP. Chances are you will have an equal share of local sites and fairly reasonable recommendations.

Ask your friends whether they have had any trouble connecting to the ISP or how they would rate, how good their technical support is, and the cost of the site. They will tell you if getting their money's worth out of the site.

And if not, why not? If you do not know anybody who is already on the Web, call the local newspaper for the ISP list in the February issue of The Computer Paper for ISP advertisements. Compare the features, benefits and costs of each and then call the ones you think offer what you want for more information.

If you are able to get through and get available answers to your questions, you are doing well. Before subscribing to several months' worth of service, find out if there is an introductory rate. If you are not satisfied with an ISP's services, this gives you the chance to leave out gradually rather than later. If you are satisfied, nothing is lost, and you also gained the opportunity to learn whether the type of Internet service you thought you needed was adequate.

Next time: Getting the tools to create your Web site.

Continued

Source: Web site: <http://www.mca.com>

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Continued from page 921

detail. Would you like the weather to suddenly, and miserably, change during the trip? What about turning off the guys talking to you from the time? What about a little aerobatic flying? Hey, I broke land! And by the way, when it comes with taking a commercial jet underneath the Golden Gate Bridge, *anyway?*

There are a million little things that could be improved here, such as the very realistic mounted panels and the ability to replay your flight from various viewpoints, or using the *Flight Analyzer* to understand your take-off or landing. However, perhaps the best thing is to hear it from someone who knows more about flight and simulation, instead of computers and words.

Free scripts for programmers »

MS: If you own a Web page and have the capability to run scripts, you'll be interested to learn about this new site. It contains free Perl and CGI scripts that you can download and use to place CGI page. First scripts currently available include a logger that allows you to track hits from users, a poller that allows a poller to voting page to be established in a hidden country, and a mail library package that allow email to be added to a CGI program.

doi:10.1017/S002229240000209

"I think there is no comparison to a real simulator, but for what it does I think it is the overall effect is somehow like real flight, somewhat, but the keyboard is a very poor device for operating an airplane. I did have some difficulty figuring out how to do things that I do automatically in a real aircraft. I would say a joystick is essential. Otherwise it is a decent product and would give a new learner a little understanding of the basic rules that govern flight and navigation," notes Oakeshott.

Flight Simulator for Windows 95 is a good program and only getting better. Chapter 12

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